



PROMOTING SUSTAINABLE MENSTRUAL HYGIENE MANAGEMENT (MHM) AND SANITATION FOR SCHOOL GOING GIRLS IN RURAL SCHOOLS



The Executive Director
Maboshe Memorial Centre – MMC,
Off Mongu – Lusaka Road, Chisonga Fuel Storage Road,
Chisonga Area, Mongu District, Western Province – Zambia, Southern Africa.
Cell #: + 260979997382, +260975077808 and +260954655071
Email: mmcmonguheadoffice@ymail.com
Website: - <http://www.maboshememorialcentremmc.yolasite.com>
Blog: - <https://maboshememorialmmc.blogspot.com/>
Facebook page: - <http://www.facebook.com/maboshememorialc>
Twitter: - https://twitter.com/mmc_office

2019

Acknowledgements

This study highlights the challenges school girls face when managing menstruation in school in Mongu District, Zambia. The programme aimed at advocacy and capacity building for Menstrual Hygiene Management through Water Sanitation and Hygiene in Schools.

This survey study was conducted by Maboshe Memorial Centre (MMC) and we would like to express our sincere gratitude to all those involved. To be precise, we would like to appreciate the Maboshe Small Village Bank Fund (MSVBF) for their valuable and unreserved funding in the development of survey study.

We would like also to thank the data enumerators (MMC community volunteers) for their durable work and professional skills exhibited during questionnaire translation from English to Silozi, data collection and data transcribing.

Our gratitude further goes to the Mongu District Education Board Secretary (DEBS) school pupil participants of this survey study and the management of seven (7) Primary Schools named: - Mukangu, Lukulo, Musalonga, Nakanyaa, Mawawa, Kannde and Namachaha Primary Schools for their participation whose consent and contributions made this study possible. We sincerely hope their stories and experiences will contribute greatly in creating a supportive school environment where girls are safe to learn.

Finally, we intend that the results of the study will give all key stakeholders understand clearer picture on the current Menstrual Hygiene Management (MHM) and Sanitation situation under Mukangu, Lukulo, Musalonga, Nakanyaa, Mawawa, Kannde and Namachaha Primary Schools and be able to make informed decision towards improving the status quo.

Table of Contents

Acronyms	4
Executive summary	4
Chapter 1	6
Introduction	7
Country Context	7
Provincial Context	7
Objectives	7
Chapter 2	8
Methodology	8
Assessment Background	8
Study Population	9
Study sites	9
Data collection tools and procedures	9
Quality Assurance	9
Sampling technique and sample size determination	10
Data Analysis	10
Data dissemination	10
Ethical Consideration	10
Chapter 3	11
Presentation of results	11
Menstrual Materials	14
Affordability of Sanitary Pads	14
Disposal of Sanitary Pads	15
Usability of Sanitary Pads and Facilities	17
Factors that affect the choice of Sanitary pads	17
Financial Liquidity and Savings	18
Discussion of Results	18
Sanitary pads cost analysis	18
Girl's description of in ideal toilet	19
Sanitary infrastructure	19
Conclusion and Recommendations	20
References	21

Acronyms

CIDRZ	Centre for Infectious Disease Research in Zambia
CLTS	Community Led Total Sanitation
DEBS	District Education Board Secretary
MMC	Maboshe Memorial Centre
MHM	Menstrual Hygiene Management
MoE	Ministry of Education
MOH	Ministry of Health
MLGH	Ministry of Local Government and Housing
MOGE	Ministry of Education General Education
O&M	Operations and Maintenance
PPP	Public Private Partnership
PTA	Parent Teacher Association
RWSSP	Rural Water Supply and Sanitation Programme
SLTS	School Led Total Sanitation
UNICEF	United Nations Children's Fund
UNESCO	United Nations Educational, Scientific and Cultural Organization
USAID	United States Agency for International Development
WASH	Water Sanitation and Hygiene
WHO	World Health Organisation
WinS	Water Sanitation and Hygiene in Schools
FGD/s	Focus Group Discussion/s
KII/s	Key Informant interview/s
IDI/s	In-depth Interview/

Executive Summary

During our 2017 -2018 community project implementation visits periods the Mabushe Memorial Centre (MMC) office was informed of girls and women in some of the organization operating zones using of cow dung instead of sanitary pads.

Menstruation is one of the signs that show that a girl is turning into a woman, this occurs monthly. It is a major stage of puberty in girls.

It's quite unfortunate that in rural areas of Mongu district in Zambia and in the 21st century there are girls who cannot be able to gain access to sanitary towels.

Girls of 10-16 years have resorted to use cow dung, which makes into a flat shape and hang it out on the sun to dry and others also use cow dung which is made into a powder after dried in the sun. They make several pieces of them so that they can be able to use them for about three (3) months. When they are on their period, they take the dried cow dung and place it on their inner wear and put some pieces of cloth on top of the dried dung. They said that the dung acts as a sponge and absorbs the blood when it passes through the cloth.

According to the findings done by the Mabushe Memorial Centre (MMC) from Doctors in obstetrics and gynecology, say girls and women suffer from gynecological diseases due to the improper use of sanitary products. World Health Organization (WHO) claims that 63% of gynecological diseases are caused by using poor quality sanitary products as girls and women are vulnerable to infection during this delicate period and weakened immunity can lead to more serious health threats.

The girls and women in our operation zones in the rural areas say that they use cow dung because they cannot afford to buy proper sanitary wear or pad. For a woman to keep clean and prevent any leakages they may need more than one sanitary towel and those with a heavy flow may need up to 4 of them. This can be costly and can lead to the spending of more than US\$20 (K200) per month and this is relatively expensive to people who are living in rural areas. I believe that Mabushe Memorial Centre (MMC) is trying to lobby from government and the donor community to subsidize the prices of sanitary towels and make it more affordable to everyone.

In different parts of rural Mongu district or Western province of Zambia, girls and women especially school going girls choose to remain home every month while on their period. This causes girls to miss out on a lot, some even remain at home for almost a week depending on how different the menses vary. A woman in Kembu Village said growing up, *menstruation was a taboo topic to talk about openly because with it came dire consequences like isolation and utter embarrassment* and a girls in Kannde Village she stays home during her period due to an experience she would love to forget. *She said, "I cannot forget the humiliation i experienced when my fellow pupils saw blood on my uniform and it being a mixed school the boys made fun of me."* This experience shows exactly what happens to girls if they happen to soil their clothes while out in public.

Menstrual hygiene is top on the agenda for the Mabushe Memorial Centre (MMC) because MMC prioritize girls' education. That is why MMC is doing everything possible to ensure the girl child remains in school.

Mabushe Memorial Centre (MMC) feels that we have to break the silence and build awareness about the fundamental role that good Menstrual Hygiene Management (MHM) plays in enabling girls and women to reach their full potential in living a health life by promoting hygiene.



Patrick Mabushe
Executive Director
Mabushe Memorial Centre (MMC)

Chapter 1

Introduction

Many of the schools visited have a population of students of more than 500, of which 300 are female pupils and 200 are male pupils. Furthermore, with a total number of 8 members of staff, of which 3 are male and 5 are female teachers.

1 in 10 girls on African continent misses school during her period, according the United Nations education agency. In Zambia, one of the biggest obstacles for school menstruating girls is a lack of sanitary napkins, often too expensive for families to afford.

Without access to sanitary pads to contain the flow, girls stay home, half of girls in rural areas report missing five (5) to seven (7) days of school each month when they're on their periods. Girls living in rural areas of Zambia have little or no access to, or cannot afford modern commercially-produced disposable sanitary pads and are taught by older women what to use instead. *Torn cloths, cow dung, dirty rags or mattress pieces, newspaper or even sand and leaves instead* (rather like a sarong) is traditionally used but this is bulky and doesn't stay in place so girls will stay at home, particularly from school during their menses. Doing this puts them at a huge risk of infection. This means that they miss lessons for around 1 week in every four - that's 25% of lessons or, during their four years of secondary education, a whole year of schooling. Educating a girl means that they will a higher income, healthier baby, and be more involved in community activities and often, it helps break the cycle of extreme poverty.

Despite the high number of primary schools assessed of missing adequate sanitary and hygiene facilities, the schools are challenged in particular providing healthy sanitation conditions. With approximately 100 to 200 pupils frequenting the sanitation place on average per day, the number of sanitary structure per school and waste management facilities are insufficient to keep the premises secured, clean and cater for the minimum sanitation needs. Besides, poor toilet facilities coupled with lack of running water and inadequate waste disposal facilities, the lack of involvement and ownership by the pupils found in the school to take a leading role in managing the sanitation at their school especially menstruating girls in schools as conditions for menstrual hygiene management are nonexistent.

Menstruating girls in schools additionally face challenges to afford sanitary towels (ST). To cope with their menstruation, they either use unhygienic absorbent materials or stay at home and away from their schools, which affects their school lessons.

With the above problem analysis, Maboshe Memorial Centre (MMC) is hoping to lobby for donor funding to conduct a 2 to 3 years project in the seven (7) Primary Schools (Mukangu, Lukulo, Musalonga, Nakanyaa, Mawawa, Kannde and Namachaha Primary Schools) with the core aim of reducing menstrual hygiene challenges that menstruating girls in schools faces.

The survey on promoting sustainable Menstrual Hygiene Management (MHM) and Sanitation for menstruating girls in schools is a Maboshe Small Village Bank Fund (MSVBF) funded project. The project site is in seven (7) Primary Schools (Mukangu, Lukulo, Musalonga, Nakanyaa, Mawawa, Kannde and Namachaha Primary Schools) in Mongu district of Western province, Zambia. One of the major activities will be the construction of Menstrual Hygiene Management (MHM) shelters in the seven (7) Primary Schools (Mukangu, Lukulo, Musalonga, Nakanyaa, Mawawa, Kannde and Namachaha Primary Schools) as well as self-production of sanitary towels by Menstruating girls in schools.

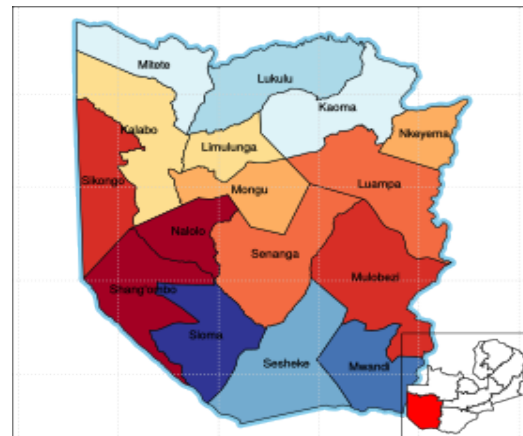
Country Context

Zambia has a population of approximately 13, 459, 000 and is located in the Southern African Region. It is divided into ten provinces and further sub-divided into one hundred and five districts (105) with each district having an administrative centre. All administrative offices including the District Education Board Secretary are located in the administrative centre.

The administrative centre is also characterized by small businesses where people access goods and services. The study was conducted in Mongu district located in the Western province respectively. Lusaka is the capital city of Zambia.

Province Context

- **Population (2018 projection) 1 million people**
- **Total land area is 126,386 km²**
- **Population density is 7.1 people per km²**
- **Population growth rate of 2.7%**
- **Annual inflation rate is 9.0%**
- **Contribution to National GDP is 2.9%**
- **Total Western GDP K6,210.6 Million**
- **Unemployment rate 67.4%**
- **Youth unemployment rate 70.5%**
- **Incidence of Multi-Dimension Poverty 75%**



Holistic Problems in Western Province communities need holistic solutions

- **Lack of electricity.**
- **Lack of clean water.**
- **Poor sanitation.**
- **Limited or no access to health care services.**
- **Lack of knowledge and skills.**
- **Child Marriage & pregnancy.**
- **Poor quality of housing.**
- **Poor agriculture practices.**
- **Lack of internet connectivity.**

Objectives

The general aim of this survey is to provide essential information on benchmark analytical indicators.

1. To assess the accessibility, affordability and usability of the sanitary towels in seven (7) Primary Schools (Mukangu, Lukulo, Musalonga, Nakanyaa, Mawawa, Kannde and Namachaha Primary Schools).
2. To determine the prevailing financial liquidity of parents for menstruating girls in schools in seven (7) Primary Schools (Mukangu, Lukulo, Musalonga, Nakanyaa, Mawawa, Kannde and Namachaha Primary Schools).
3. To establish the perceptions of menstruating girls in schools towards buying of sanitary towels.
4. To collect benchmark analytical data for the project outcome and impact indicators

Chapter 2

Methodology

The study utilised qualitative methods using focus group discussions (FGD) with 70 girls, 10 each per school (7 primary schools) and key informant interviews (KII) with 7 school teachers (7 primary schools) to collect data. Data were collected in seven (7) primary schools named: - Mukangu, Lukulo, Musalonga, Nakanyaa, Mawawa, Kannde and Namachaha primary schools located in rural areas in Mongu district. The selection criteria included schools with and those without sanitation facilities in order to investigate the different challenges faced by girls. Structured observation forms were used to conduct the School Water, Sanitation and Hygiene (WASH) assessment

This study was a purely qualitative study and was conducted in seven (7) Primary Schools named: - Mukangu, Lukulo, Musalonga, Nakanyaa, Mawawa, Kannde and Namachaha Primary Schools.

Qualitative data was collected using a Focus Group Discussion (FGD) guide. A checklist was further used to capture data on the existing menstrual hygiene facilities. Recorded data was transcribed and entered in NVIVO to facilitate data analysis.

Convergence between data collected using a checklist and focus group discussion was done during the reporting stage.

Assessment Background

Menstruation is part of the female reproductive cycle that takes place during the transformation into adolescence at the time of puberty. It is a natural process signifying physiological development of an adolescent girl. On average, girls reach menarche at thirteen (13) years but ranging between the ages of nine (9) and sixteen (16) years. The menstruation period usually lasts for an average of five (5) days, but may vary from five (5) to over seven (7) days.

MHM entails, adolescent girls use a clean material to absorb or collect menstrual blood, and this material can be changed in privacy as often as necessary for the duration of menstruation. MHM also includes using soap and water for washing the body as required, and having access to facilities to dispose of used menstrual management materials."

The definition emphasizes the use of clean and adequate material, privacy, the use of soap and water and access to disposal facilities. All these elements are required to be present for proper MHM.

The management of menstruation is often specific to the context of a particular country and is dependent on cultural, social, educational and economic status. Young girls in developing countries often receive minimal education on Menstrual Hygiene Management. This may be because menstruation is seen as taboo in many communities, making it difficult for adolescent girls to acquire necessary information and support from parents and teachers.

Menstrual Hygiene Management programming is relatively new in Zambia and hence very little research has been conducted around menstruation. However, in 2013 the MOGE working with the MHM thematic working group conducted a quantitative study to understand the effects of Menstrual Hygiene Management on girls' school attendance. The main findings from this study revealed that girls missed up to 36 school days per year due to menstrual-related challenges. The study also showed that WASH facilities were inadequate for purposes of menstrual hygiene management.

In Zambia, issues around menstruation are rarely discussed openly and therefore, remain a secret. There are many myths and taboos still hovering around menstruation that lead to negative attitudes toward this biological phenomenon. At menarche, girls in Zambia undergo initiation ceremonies to mark the rite of passage and this is different from tribe to tribe. For example in the Silozi tribe, the initiation ceremony is known as Sikenge. Elderly women who teach girls on their

adult roles as women conduct this ceremony. The ceremony lasts for a period of 6 weeks to 3 months in which girls are in seclusion and are not allowed to attend school. This has adverse effects on their school attendance, performance and academic advancement.

The purpose of this research was to investigate factors that influence the management of menstruation amongst schoolgirls in rural settings. This report presents the study findings that bring to light various challenges and determinants girls' MHM practices. The reader will also find interesting the girls' voiced impacts on the challenges they face. Lastly, it discusses the practical steps that should be taken to ensure appropriate MHM interventions are promoted in schools.

Study Population

Many of the schools visited have a population of students of more than 500 of which 300 are female pupils and 200 are male pupils. Furthermore, with a total number of 8 members of staff, of which 3 are male and 5 are female teachers.

Study sites

The survey was conducted in Mongu district of Western province in Zambia. The focus areas being seven (7) Primary Schools (Mukangu, Lukulo, Musalonga, Nakanyaa, Mawawa, Kannde and Namachaha Primary Schools).

Data collection tools and procedures

In order for the survey to meet its intended objectives, different data collection methods were used.

This allowed data to be triangulated from different sources. Qualitative data was collected using a Focus Group Discussion (FGD) guide. Observational study was also used to collect data on key indicators of the project. A checklist was further used to capture data on the existing menstrual hygiene facilities.



A woman from Kembu Village in Mongu district, show cow dung used as sanitary pads, pictured by Patrick Maboshe.

The survey data was also collected from secondary data to provide analytical benchmark data on different program indicators while photos were also captured to visualize the general situation on certain indicators. However, Qualitative data captured on a structured guide was entered in NVIVO to organize the data for easy analysis.

Quality Assurance

Quality assurance was a fundamental part of this survey. Therefore, quality was assured through four basic extensions:

1. The first was at the recruitment stage of research enumerators, some level of effort was made to ensure that only qualified and experienced enumerators were recruited for the assignment.
2. Second, extensive training of data collectors was done in order to ensure that interviewer's bias is reduced. The training also ensured that data collectors understood the objectives, processes as well as output requirements for consistency and completeness of data that was collected.

3. Thirdly, close and continuous supervision of data collectors was done by the principal investigator to ensure that the study captures what it intended to capture. All data collection tools were checked by the field supervisor on a daily basis to ensure that collected data was consistent and complete. Data collected via focus group discussions were recorded and transcribed.

Sampling technique and sample size determination

The selection of focus group participants was done using convenience sampling method. This allowed the researcher to obtain basic data and trends regarding the set indicators.

Data Analysis

Qualitative data was transcribed and entered in NVIVO software to facilitate data analysis. Thematic analysis was then used for the qualitative data. Convergence between data collected using a checklist and observation was done during the reporting stage. Furthermore, a comprehensive document review was done to collect all information on secondary data indicators.

Data dissemination

Upon completion of the study, findings were presented to Maboshe Memorial Centre (MMC) management and WASH/Menstrual Hygiene Officer. The report was then shared with Mongu District Education Secretary Board (DESB) and project beneficiaries. In addition the report was presented in hard copy and soft copy form.

Ethical Consideration

All menstruating girls in schools (participants) were informed about the purpose of the study and their right to decline from participating as well as the right to withdraw at any stage of the study. Participants were assured that no information pertaining to their identity will be recorded during data collection and reporting stages of the study, hence ensuring confidentiality. Verbal consent was obtained before data collection.

Information on the study as well as all possible risks of participating in the study was communicated to participants in order to respect their autonomous decision on whether to participate in the study or not.

The study only involved female research assistants who possibly eliminated the bias of certain menstruating girls in schools from responding to sensitive questions on menstrual hygiene management; however, menstruating girls in schools were also at liberty to pull out from the study at any time they felt like. The study did not provide any direct benefits to the study participants. This was clearly indicated prior to the study to ensure that participants who were not comfortable with revealing information would be free to pull out from the study.

Chapter 3

Presentation of results

However, the study was conducted in seven (7) Primary Schools (Mukangu, Lukulo, Musalonga, Nakanyaa, Mawawa, Kannde and Namachaha Primary Schools. Although results of this study cannot be generalized to other schools, the general situation is that most pupils from these schools are menstruating girls in schools. There is a wide range of activities that menstruating girls in schools engage themselves in, for instance: selling of vegetables, chickens, second hand clothes, etc.

The study revealed limited knowledge levels and misconceptions on the biological process of menstruation among girls who participated in the study. Girls consistently reported that they did not know anything about menstruation before menarche (first menstruation) and only received informal education on MHM when they attained menarche. KII with teachers revealed inadequacies in the curriculum on MHM, thus the teachers, especially the male ones, required support and tools in order to deliver the teaching effectively. The girls' IDIs revealed several negative feelings and emotions associated with menarche including fear, disappointment, shame, rejection and worry. The FGDs showed deep-seated traditional practices and beliefs surrounding the onset of menarche. The common types of sanitary materials used were children's diapers, cow dung and pieces of cloths. Girls prefer to stay home during menstruation for fear of staining their dresses, interacting with and being teased by boys. The girls also reported that the toilets at school were usually unclean and lacked privacy.

Therefore, they chose to use the toilets and bush to manage their menstruation while at school. All the schools reported not to have any emergency sanitary materials for girls. The School WASH assessment revealed that World Health Organisation (WHO) standards were not fully met hence compromising adequate MHM practices at schools.

Results show that the seven (7) schools had no conducive menstrual hygiene environment for girl's pupils in schools. The current existing facilities do not meet the minimum standards to provide healthy MHM.

Generally, the schools don't have any form of disposable sanitary towels, however, the cost of obtaining the sanitary towels is way too high for the menstruating girls in the even (7) schools and this makes them to resort into using other alternatives such as children's diapers, cow dung and pieces of cloths. The cost of using the menstrual hygiene facilities as well as the cost of buying the sanitary towels leaves girls at a more vulnerable state because of expensive pads in rural, most girls who can afford to buy sanitary pads end up going home or into the bush to change and dispose used sanitary towels. Hence extensive time is lost from their class lessons during menstruation periods as girls feel uncomfortable after using the latrine or bush.

The results bring out various challenges girls faced during menstruation in the school context. Challenges are simply difficulties that make it hard for girls to be comfortable or be in school whilst menstruating. Girls were asked what they experienced and how they felt about menstruating while attending classes. They reported feelings of fear, embarrassment, discomfort and seclusion while on menstruation.

Results from this survey showed that menstruating girls in schools generally report for school as early as 6am and in class till 13pm. Therefore, menstruating girls in schools spend most of their time learning at the school than being home.

Moreover, sometimes school lessons days are even extended to weekends. This being the case, menstrual hygiene management becomes a critical issue worth being addressed. Results presented in this chapter show the general situation of menstruating girls in schools in seven (7) Primary Schools (Mukangu, Lukulo, Musalonga, Nakanyaa, Mawawa, Kannde and

Namachaha Primary Schools. In addition, the chapter also responds to all set objectives of this study as well as information on selected key indicators.

The reasons given for these negative feelings were:

- Menstruation is secret and no one should know (especially males) that you are menstruating.
- Male teachers cannot be approached for help if a girl needs to go home
- Boys tease girls when they know that they are menstruating or they stain their dresses/skirts.
- Menstrual material used is not absorbent and feels wet leading to feelings of discomfort.
- Bad odour, this served as a confirmation that girls may release bad odour when menstruating. Bad odour is determined by the sanitary material a girl uses and is also dependent on how long the girl has been wearing the cloth; the longer the duration, the more likely it is to smell bad.
- Abdominal pain during menstruation. Girls who experienced menstrual pain chose to stay at home and not go to school. Others that felt pain while in school would simply leave class without permission, as they fear that the teacher will know that they are menstruating
- Inadequate functional WASH facilities characterised by high pupil toilet ratios
- Poorly maintained toilets, smelly and dirty
- No disposal facilities for used menstrual materials
- Lack of washrooms
- Lack of resting place.
- Basic toilets without doors and privacy
- Insufficient financial capacity to buy preferred menstrual materials
- Limited access to preferred menstrual materials
- Strong cultural beliefs concerning disposal of used menstrual materials
- Use of non-absorbent materials such as cow dung, cloth, cotton wool and tissues
- Limited knowledge on menstruation prior to menarche
- No formal education on MHM at school
- Teachers have no teaching materials on MHM
- MHM teachings centred on tradition behaviour, sexual reproduction and marriage
- Misinformation, based on myths and misconceptions

Table 1: Existing girl's sanitary facilities checklist for Mukangu, Lukulo, Musalonga, Nakanyaa, Mawawa, Kannde and Namachaha Primary Schools

Features	Mukangu	Lukulo	Musalonga	Nakanyaa	Mawawa	Kannde	Namachaha
Toilets available	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Toilets functioning	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Toilets in good condition	No	No	No	No	No	No	No
Toilets kept clean	No	No	No	No	No	No	No
Flies and Bad Smell	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Urine on the floor	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Toilet has a person who cleans it regularly (hourly)	No	No	No	No	No	No	No
Hand washing services available	No	No	No	No	No	No	No
Water always available	No	No	No	No	No	No	No
Toilets lockable for privacy	No	No	No	No	No	No	No
Trash bins for girls	No	No	No	No	No	No	No
Space or pits used for burning sanitary materials	No	No	No	No	No	No	No
Frequency of toilet use (people per day)	103	180	107	100	90	80	90

There are a number of challenges that menstruating girls in schools face. It is evident from this study that menstruating girls in schools lack user friendly facilities or environment for their menstrual hygiene management. A round up check shows existing facilities not being in a good condition and do not meet minimum standards. This is highly attributed to the fact that certain basic conditions were missing from the facilities. The toilets were not always kept clean such that at the time of inspection, the facilities had urine on the floor and a bad smell.



The type toilets used by school pupils and teachers at both primary schools, pictured by Patrick Maboshe.

Minimum quality menstrual hygiene management always ensures that adequate water is available at all times. However, besides having a high traffic of users, the facilities were made of thatched grass not lockable and had no running water. A respondent had this to say:

Although the functioning toilets are made up of thatched grass and are not in a good condition: This further implies that every time menstruating girls in schools have to change their sanitary towels, they have to consider security and privately. Menstruating girls in schools change sanitary towels on an average of five times in a day; therefore, a sum of US\$2 (K20) is used in a day when on menstruation. Due to the condition and cost, most menstruating girls in schools end up resort to other alternatives cow dung, cotton wool and cloth materials.

As can be seen, the toilet offers no convinience and privacy menstruating girls in schools to accessing it. Results obtained in Mukangu Primary School on the checklist were much similar to those obtained from other primary schools. The toilets are made of thatched grass, no door, do not have flowing water, no running water and where not always kept clean.

Privacy: Girls were afraid that others who were passing by the toilets would see them because the toilets were either too small; made of thatched grass, no doors, do not have flowing water, no running water and doors with no locks.

Cleanliness: Cleanliness is important for comfort while using a toilet. Another reason that girls reported not to use the toilets was that they were visibly dirty and smelly. This affected the management of menstruation whilst at school and forced girls not to change their menstrual material until they left from school.

As can be seen in the images, the toilets are made of thatched grass, no door and do not have flowing water. However, water is not stored nearby and every time a menstruating girl uses the toilet, she has to use water from the school borehole.

None of the schools is offering a relatively convenient environment; it was clear from the FGD that most menstruating girls in schools preferred using other alternatives of disposing used sanitary towels as the environment was not conducive.

More than half menstruating girls in schools in the FGD said that it was better to dispose used sanitary towels in the bush and at home because of lack of sanitary facilities. Besides, the checklist further supplements the findings as it shows an estimate frequency of more than 100 users per day with no access to hand washing facility are available.

School sanitation facilities need to be stocked with all essential supplies such as; hand washing facility, water, soap and as well as paper towels. That being said, the type of soap used definitely matters. In a case of the seven (7) schools, not one type of the soap was found 'hand soap' which to some extent is less recommended for public toilets.

Since the toilets had no running water at the time of the survey. In addition, no improvised bins for menstruating girls in schools to dispose used sanitary towels were always left open in the bush.

Besides having a variety of sanitary towels, menstruating girls in schools still use other alternatives such as children's diapers, cow dung and pieces of cloths. The main reason cited for using other means such as cow dung or a piece of a cloth is that the price of buying descent and conventional sanitary towels was too high.

It was further noticed that although a wide pool of brands exists, some brands were mostly out of stock. The study results further reveals that sanitary towels are only sold in a few shops in the areas of the seven schools community markets. This was also evident during the collection of sanitary towels samples. "Sometimes certain brands are usually out of stock for a month or more"

Although this was the case with Mukangu, Lukulo, Musalonga, Nakanyaa, Mawawa, Kannde and Namachaha Primary Schools only had 1 or 2 shops that sale sanitary towels. It can further be argued that only one shop is consistent with the supply of sanitary towels. This compromises the ability for menstruating girls in schools to conduct their normal day to day school activities especially when they are on menstruation.

Menstrual Materials

Girls used children's diapers, cow dung and pieces of cloths to absorb their menstrual blood. Below are some quotes from girls:

When my mother came, she told me that now you have grown so you should not be playing with boys then she showed me how to wear a pad or children's diapers, cow dung and pieces of cloths.

Female Pupil, Namachaha

"...my grandmother tore the cloth material or children's diapers, cow dung and pieces of cloths for me and said that when you are on your period you get one and put it on and wear something inside to support your pant.

Female Pupil, Mumbwa

"She said I can use cotton wool or children's diapers, cow dung and pieces of cloths in case they are no pads..."

Female Pupil, Rufunsa

Affordability of sanitary pads

During days of menstruation, girls had more access to children's diapers, cow dung and pieces of cloths made from used/old material. They interchanged materials between children's diapers, cow dung and pieces of cloths depending on availability.

Female pupils near Mongu town (Namachaha) were aware of pads and had used them before, unlike those coming from remote areas of about 20Km and beyond. Girls from these remote areas denied ever using disposal pads. This could be attributed to the distribution of shops and gainful economic ventures. In comparison, more shops stocked menstrual pads

around the Mongu town than in rural areas.

In addition, people around Mongu town engaged in some form of employment or trade unlike their rural counterparts who were predominantly peasant farmers.

Pads were considered the most expensive option ranging from US\$2 (K20) to US\$5 (K50) for a pack of 10 pads. Their mother or female guardian but never their father or a male guardian, typically provided pads to them. Girls stated that they use cow dung and pieces of cloths because it free and available around the community or purchase cotton wool or children’s diapers from the market at US\$1 (K10) or obtained from the Health clinic free. Participants were also asked about whether they knew or had used re-usable pads before and none of the participants reported knowing or using reusable pads.

Although reusable sanitary pads last longer compared to the disposable ones, at the time of the study, the two to three shops in the seven (7) school areas only had disposable sanitary towels for sale. It is important to note here that the lifespan of disposable towels is very short which forces menstruating girls who are able to afford to buy in bulk. One of the critical factors of this study was to establish how affordable existing sanitary pads are to menstruating girls in schools.

Results revealed that the price of sanitary pads ranges from US\$2 (K20) to US\$5 (K50) per pack. Despite this being the case, most menstruating girls are unable to buy enough pads to see them finish the menstrual period. As a result, some menstruating girls in schools resort in using other unconventional means such as children’s diapers, cow dung and pieces of cloths. Other menstruating girls buy sanitary pads from outside their communities because they are relatively cheap and others buy sanitary pads at wholesale price in during visit to Mongu town while others opt to buy them from shopping mall.

The availability of menstrual materials in schools was a challenge. Ideally, schools should stock emergency menstrual materials for girls who start their menstruation in school and have no material to use. Out of all the seven (7) schools visited, not one school stocked disposable pads for use by girls. All teachers interviewed reported that their schools did not provide menstrual pads for girls who would start their menstruation in school. The main reason given for this was that, the Ministry of education or school did not have funding to afford this. This finding was consistent with what girls said when asked whether they access menstrual material from school.

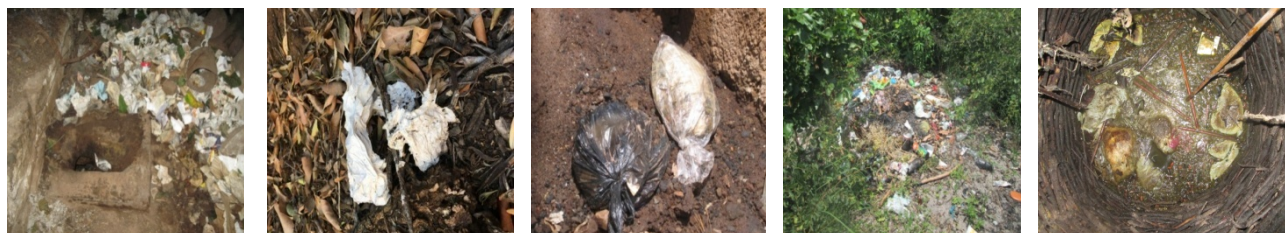
SANITARY PROTECTION OPTION.	ADVANTAGES	DISADVANTAGES
Natural materials (e.g. mud, cow dung, leaves)	<ul style="list-style-type: none"> ▪ Free ▪ Locally available 	<ul style="list-style-type: none"> ▪ High risk of contamination ▪ Difficult and uncomfortable to use
Strips of clothes	<ul style="list-style-type: none"> ▪ Easily available in the local market ▪ Re-usable 	<ul style="list-style-type: none"> ▪ If old cloths are not cleaned well they can become unhygienic. ▪ Users need somewhere private, with a water supply and soap, to wash and dry the cloths.
Children’s diapers	Easily available in the local market	<ul style="list-style-type: none"> ▪ Loses strength when wet and can fall apart. ▪ Difficult to hold in place. ▪ May be too expensive for the poorest users
Re-usable pads	<ul style="list-style-type: none"> ▪ Available locally or on the internet ▪ Income generation opportunity, if locally made 	<ul style="list-style-type: none"> ▪ Users need somewhere private, with a water supply and soap, to wash and dry the pads. ▪ Cost is prohibitive to many potential

	<ul style="list-style-type: none"> ▪ Cost effective as are re-usable ▪ More environmentally-friendly than disposable pads 	users, if commercially produced
Panties/ Underwear	<ul style="list-style-type: none"> ▪ Useful for keeping a sanitary product in place. ▪ Good for keeping the vaginal area hygienic. 	<ul style="list-style-type: none"> ▪ Cost may be prohibitive to potential users. ▪ Cheap elastic can wear out relatively quickly.

Disposal of Sanitary pads

Good management of menstrual hygiene should obviously include safe sanitary pads disposal. However, in developing countries like Zambia, various problems exist when it comes to sanitary disposal. It is necessary to dispose used sanitary pads in a proper and healthy way. In as much as menstrual periods are occasionally inconvenient, disposing used sanitary pads becomes another issue that menstruating girls in schools have to worry about. ***“Some of us who stay close to the school are forced to go home and change from there, but this is quite involving because there are certain days where you need to go there for so many times”***. When asked about how sanitary pads are disposed by menstruating girls in schools, it came out clear from the focus group discussions that some menstruating girls in schools throw used sanitary pads directly in toilets and bush which they admitted to be the main cause of flies and bad smell. In the absence of the right disposal facilities, such traits are likely to continue.

No schools made provision for disposal facilities for used menstrual material in schools. Some girls reported that they disposed of their menstrual material in the pit latrines at home and school while others disposed of them in the bush. There is a myth that witches use menstrual blood to cast spells on a person. Therefore, some girls do not dispose of their menstrual material at school for fear of the same. Because of the fear of being bewitched, girls found it safe to throw their used menstrual materials in pit latrines.



Some of sanitary pads disposed in the bush at a near by school and a school filled pit latrine, pictured by Patrick Mabushe.

The biggest problem with improper menstrual waste disposal is that it has high prospects to lead to health related problems. Besides, some sanitary towels are made from non-biodegradable materials hence improper disposal may cause environmental problems. It can further be argued that the more a woman stays without changing the sanitary towel, the more susceptible she is to other health problems.

It also has the potential of allowing pathogens to boom in it. FGD results shows that most menstruating girls in schools did not understand the problems attached to improper disposal of sanitary pads.

Some menstruating girls in schools end up in a desperate situation which further leads them to dispose sanitary pads anyhow: ***“Some sanitary pads are disposed in the bush or disposed where we throw waste”***. ***This call for consented efforts in order to create awareness about the importance of menstrual hygiene management especially in places where food is sold on a daily basis”***.

Although there are different ways of disposing used sanitary pads, it is important to ensure that such methods avoid direct handling of used sanitary pads. It is for this reason that modern toilets usually have stand bin, no-touch bin, and bin with foot pedal or swing top bin. Such bins have to be set in order to aid the disposal of used sanitary pads. As earlier mentioned, both schools did not have such bins installed in the toilets. "Sometimes we change in the toilet and put in a plastic bag which we carry at the end of the day and dispose the used sanitary towels from home or bush if permission is given to you by the class teacher during lessons"

During the school assessment of sanitation facilities, it was found that all the girls' toilets had no trash bins for disposal of sanitary materials. When the girls were asked what they would like to have in an ideal toilet during the FGDs, they did not mention any need for trash bins and maintained that they would prefer to use pit latrines and bush to dispose of used materials.



US5 (K50)



US2 (K20)

Comparison of different types of bins that can be used to dispose used sanitary pads

It is clear that from the inspections done at the seven (7) schools have no bin installed for menstruating girls in schools to dispose used sanitary pads.

Usability of sanitary pads & facilities

Menstrual sanitary pads are worn to absorb menstrual flow during girl menstruation. This helps menstruating girls to perform their day to day school activities without staying confined. There were two types of menstrual hygiene sanitary pads sold at Mukangu, Lukulo, Musalonga, Nakanyaa, Mawawa, Kannde and Namachaha communities. These products are made from different absorbent fabrics and by different manufacturers. It is thus worthwhile to generally get necessary information on how comfortable sanitary pads are to the end users.

Despite preference of long sanitary pads, most menstruating girls expressed discomfort because are forced to change sanitary pads from time to time, hence making it expensive and time consuming. It also further implies that the level of comfort during menstrual periods is compromised. *"Some sanitary pads are not comfortable because they itch. This causes a lot of problems and discomfort when you are in class sited"*.

Factors that affect the choice of the sanitary pads

There are number of cited reasons that affect the choice of sanitary pads. Among the prominent reason is the preference of long sanitary towels (height) as they are comfortable compared to the short one. Menstruating girls further believe that certain brands have a bad reaction to their skin (rash). *"I usually have rash on my skin whenever I use a certain brand"*.

Durability of the sanitary pads is also another factor when making a choice of the brand one intends to buy, most menstruating girls prefer pads that last long and do not easily get absorbed. As stated above, most menstruating girls in schools spend up 9 to 10 hours in class; therefore preference is made to sanitary pads that would keep someone dry and comfortable for a long period of time. Apart from that, it saves on the cost of buying sanitary pads.

Additionally, the shape of sanitary pads is another factor considered when it comes to choosing the sanitary pads one wants to buy. From the study, most menstruating girls in schools expressed preference of sanitary pads that have wings. One menstruating girl from the FGD had this to say; *“Sanitary pads that have wings are comfortable and help prevent leakage of blood when you are walking”*.

Financial Liquidity and Savings

Overall, parents of menstruating girls in schools have broadly similar monthly earnings. Most parents' income was found to be between US\$35 (K350) to US\$50 (K500) per month. Therefore, to find the average monthly earnings for most parents, the average of averages was computed. Most parents earn an average amount of K500 per month. This is mainly from their day to day activities of selling vegetables, selling of chickens, assorted groceries, etc.

One of the challenges in low income countries like Zambia is that the savings rates are low. This is mainly due to low disposable income and financial literacy. A number of reasons were cited as to why most parents do not save money.

The amount at which shop owners order their goods is too high making it very difficult for them to make profits. “We order goods at a high price and this affects the profits we make”.

The survey was able to establish that most parents have little or no access to finances. The formal financial lending sector which are mainly banks have high borrowing rates, this reduces the borrowing power of the parents. In addition, the speed and flexibility of the formal sector makes it even hard for a parent with low financial literacy to borrow money. Therefore, parents save through a scheme called Silimba. Silimba is lending to a certain individual in the group the entire part of the money for a period agreed and then later receive it back together with the other person's equal and reciprocal contribution after an agreed period of time. Although this method seemed to be working, very few parents involved themselves in this scheme. Besides, no structured documents binding the agreement are in place.

Discussion of Results

From the study findings, it is clear that both schools do not have an existing menstrual hygiene management plan. However, from the key informants it was very clear that both schools need a structured MHM plan to be put in place. It was further established that despite having a variety of sanitary pads on the market. It is still hard for menstruating girls in schools to buy enough sanitary pads for the entire menstrual period. The major reason being attributed to cost.

Sanitary pads cost analysis

Existing menstrual facilities are not user friendly as a result most menstruating girls in schools have to go into the bush or home to change and dispose used sanitary towels. This compromises the time which menstruating girls in schools spend doing their school activities.

Although this cannot independently be attributed to low returns, it is one of the contributing factors that lead to low profits. It is highly said that time is the most nonrenewable resource; therefore, if menstruating girls in schools lose time by moving back and forth (or have to stay at home) to change and dispose sanitary towels at their respective homes or bush this has a direct effect on the profits they make.

Girl's description of an ideal toilet

Girls were asked to describe what they thought an ideal toilet should look like. The table below lists the key elements of an ideal toilet as expressed by the girls during the FGD:

- **TISSUE:** - Girls explained that tissue is important to help clean them, it would also be used as material in the absence of pads.
- **WATER:** - Water was a necessity to help girls rinse the blood off. It was also considered useful for bathing.
- **SOAP:** - Soap was required to effectively wash them during menstruation.
- **PADS:** - Pads were recommended in an event that girls began their menstruation while at school.
- **BATHROOM + SINK:** - these were seen as essential in enabling washing of soiled clothes and the body.
- **MIRROR:** - Girls wanted a mirror to see whether they had stained themselves or not when they were having menses.
- **DOORS:** - Doors were considered essential for privacy

Sanitary infrastructure

Water, sanitation and hygiene facilities should enable girls to be able to manage menstruation hygienically, with privacy and dignity, and in safety. To manage menstruation hygienically, it is essential that girls have access to water and sanitation.

- Absence of clean and private sanitation facilities that allow for menstrual hygiene may discourage girls from attending school when they menstruate.
- Menstrual hygiene: e.g. lockable toilets, closed bin for sanitary item disposal, sink for hand washing and cleaning of clothes (both inside toilets)
- 1 in 10 school-age African girls do not attend school during menstruation or drop out, due to this absence
- **Adequate Numbers of Toilets:** - separated (with clear signage) from male facilities.
- **Easily accessible water:** - (ideally inside the cubicle) for girls and women to wash themselves and menstrual materials.
- **Safe and private toilets:** - with inside door latch.
- **Waste bin (with lid):** -to dispose of used menstrual materials.
- **Clear signs:-** instructing girls and women how to dispose of menstrual waste.
- **Walls, door and roof:** - are made of non-transparent materials with no gaps or spaces.
- **A shelf (or hook):** - for hygienically storing belongings during usage.
- **Some units should be accessible:** - to girls with disabilities.

Challenges do girls face?

In everyday life, girls face a number of challenges around managing their menstrual hygiene.

These challenges – especially related to dignity, access, participation and safety

- Lack of sanitary materials, including underwear.
- Inadequate access to private, safe and appropriate latrines, bathing facilities, drying areas and waste disposal mechanisms.
- Lack of information and knowledge about menstruation (especially adolescent girls) and how to use sanitary materials (including underwear).
- Significant loss of privacy and dignity (especially in overcrowded, temporary or transit situations).
- Anxiety and embarrassment around leakage of blood, and discomfort associated with menstruation

- Cultural taboos and restrictions which can impact access to services and daily life. Remember that some girls may need additional assistance or support, such as girls with physical and/or learning disabilities, mobility restrictions, transgender persons or unaccompanied and separated girls.
- Lack of sanitary protection materials – leading to embarrassment and stress due to leakage, smell and teasing.
- Less concentration and participation, including not standing up to answer questions – due to embarrassment, stress, concern over leakage or smell and discomfort.
- Lack of private facilities and water supply – for washing and drying soiled clothing, cloths or hands.
- Absence – due to a lack of facilities and services at school to manage menstruation.
- Fear of using the latrine – in case others discover menstrual blood.
- Inability to keep clean – in some cultures girls and women are not allowed to bathe or wash themselves during menstruation.
- Bodily smell or the smell of used sanitary materials that have to be taken home for disposal– causing discomfort or stress.
- Lack of knowledge – girls approaching menstruation are especially lacking in information about the process, leaving them scared and embarrassed.
- Exclusion from sports – due to discomfort, concern over leakage or because of cultural restrictions

Risks of not addressing MHM?

There are a number of risks to girls if their menstrual hygiene needs are not adequately addressed:

- Girls with no other option may use old, dirty or damp cloth to absorb their menstrual flow, leading to irritation and/or infections.
- If girls need to wait for darkness to visit the latrines or bush or find a private place to change/dispose of sanitary materials at night, they risk potential sexual and gender-based violence (SGBV).
- Girls may have severely restricted movement and be forced to remain at home or in their shelter while they have their period. They may have difficulties attending classes, collecting water, access health services or work at home.
- Girls may not attend school during their periods if they lack private, appropriate facilities and sanitary items.
- Anxiety and embarrassment around leakage of blood, and discomfort or pain associated with menstruation.
- Sharing information on menstrual hygiene through dialogue with a female teacher or trusted female adult.
- Forming girls clubs where menstrual hygiene can be discussed.
- Teaching boys about menstrual hygiene through adolescence lessons for boys and girls
- Providing sanitary protection materials or training on how to make your own
- Ensuring that latrine cubicles are in a safe location, clean, covered by a screen, and have water supply, soap and a covered disposal bin for used sanitary products.
- Establishing a safe collection and disposal management system for sanitary protection materials
- Latrines have doors with locks, and are secure and private with a privacy wall.
- Latrine, water supply and hand-washing facilities are in a safe location.
- Hand-washing facilities are inside the latrine unit, with soap and water available at all times.
- Water is available (from a tap or bucket) inside latrines, bathing units and changing rooms

Conclusion and Recommendations

This study reveals that girls in rural schools have significant challenges in adequately managing their menstruation while in school. There is an urgent need to address MHM at the national, provincial, district, school and community level in order to create MHM friendly environments for girls in school.

Menstrual hygiene management in both schools is generally poor. The school has no MHM plan, which makes it difficult to coordinate and implement any menstrual hygiene management programs.

Serious attention must be paid to ensure that both schools have a proper sanitary pads disposal mechanism. Results of this study further showed that existing toilets do not offer adequate privacy necessary especially for menstruating girls in schools. Precise attention needs to be put in place to further ensure that the schools have affordable and acceptable sanitary pads that can be used by all menstruating girls in schools regardless of their current status quo.

This study further point out on a number of issues that need specific consideration on policy makers, most parents of menstruating girls in schools earn their livelihood from trading places such as markets. Therefore, a deliberate policy has to be put in place in schools to enhance menstrual hygiene management for girls. It was observed from the study that menstruating girls in schools spend most of their time in classes learning yet menstrual hygiene conditions are not favorable. This condition was discovered to have an adverse impact on the economic status of menstruating girls in schools. In worse off conditions, menstruating girls in schools are forced to stay home during their menstruation period; this directly translates to reduced school learning time for some menstruating girls in schools.



Menstruating girls in schools using bush to change their sanitary pads, pictured by Patrick Maboshe.

The study established that menstruating girls in schools

- Lack of information – many girls do not know what a sanitary pad is, what its benefits are or how to use it.
- Lack of access to sanitary pads – the few stores available in the school communities rarely stock sanitary products. This is because demand is low, most store owners are male, and menstruation is often a culturally sensitive subject.
- Affordability – some consumers simply cannot afford to purchase sanitary pads. If a girl uses one pack of sanitary pads per period, the cost is approximately the equivalent of US\$20 (K200) per month.
- Cultural barriers – menstruation is still a taboo subject in many cultures in Zambia, and this extends to the purchase and use of sanitary pads.

Finally, there is need for advocacy meetings with relevant key stakeholders (such as the government) to integrate and mainstream menstrual hygiene management into schools which are critical to menstruating girls in schools.

References

Ministry of Education [Zambia]. 2013, MHM Thematic Working Group.

Central statistical office (CSO) [Zambia] 2010 Census of Population and Housing; Population Summary Report. Central Statistics Office. Mongu..

WaterAid Guidelines for Sustainable and Inclusive School WASH, WaterAid, 2016